

Custom SSL certificates may be applied and used to support HTTPS services on the Advanced Features units. Configuring custom SSL certificates involves the following considerations:

1. Display the Default Services.
2. Disable the HTTP Service.
3. Enable the HTTPS Service.
4. Login to the GUI via HTTPS and Upload the Custom SSL Certificate (PEM file).
5. Apply the Custom SSL Certificate.

## Connect to the Advanced Features

Connect to the Advanced Features unit. A connection to the unit may be established using two options:

Directly connected to the Console Interface to COM Port using Putty/Serial connection.

Connected via the IP Management Interface using Putty/SSH connection.

### 1. Display the Default Services

The default services configuration are displayed via the console interface. Use the following procedure to display the default services configuration.

1. Press the Return key.
2. Enter enable.
3. Enter the following command to display the default services configuration.

```
Switch# show services
```

```
Networking services configuration:
```

| Service Name | Status  | Port | Protocol | Service ACL |
|--------------|---------|------|----------|-------------|
| http         | enable  | 80   | TCP      | -           |
| https        | disable | 443  | TCP      | -           |
| rpc-api      | disable | -    | TCP      | -           |
| telnet       | disable | 23   | TCP      | -           |
| ssh          | enable  | 22   | TCP      | -           |
| snmp         | disable | 161  | UDP      | -           |

## 2. Disable the HTTP Service

1. Enter the following commands to disable the HTTP service.

```

Switch# configure terminal

Switch(config)# service http disable

Switch(config)# exit

Switch# show services

Networking services configuration:
Service Name      Status      Port      Protocol  Service ACL
-----+-----+-----+-----+-----
http              disable    80        TCP       -
https             disable    443       TCP       -
rpc-api           disable    -         TCP       -
telnet            disable    23        TCP       -
ssh               enable     22        TCP       -
snmp              disable    161       UDP       -
    
```

## 3. Enable the HTTPS Service

1. Enter the following commands to enable the HTTPS service.

```

Switch# configure terminal

Switch(config)# service https enable

Switch(config)# exit

Switch# show services

Networking services configuration:
Service Name      Status      Port      Protocol  Service ACL
-----+-----+-----+-----+-----
http              disable    80        TCP       -
https             enable     443       TCP       -
rpc-api           disable    -         TCP       -
    
```

|        |         |     |     |   |
|--------|---------|-----|-----|---|
| telnet | disable | 23  | TCP | - |
| ssh    | enable  | 22  | TCP | - |
| snmp   | disable | 161 | UDP | - |

#### 4. Login to the GUI via HTTPS and Upload the Custom SSL Certificate (PEM file)

The PEM file that is uploaded onto the Advanced Features unit must contain the both key.pem and the cert.pem files. The file name must be similar to “key\_AFTest.pem”.

key\_AFTest.pem example:

```
-----BEGIN PRIVATE KEY-----
cbhsdabsdahcbsacascakhsdbkndsjnbsdjkcvsbkjdcvbskjdbvskdjvbskdvbksdbcskdcbkskdb
bskdcbfcc
ahscbahscbakshcbakshcbasdhcbakhbcahscbakshcbakshcbakshcbakshcbakshcbakshcbakshcb
akhsdb ahscashcajshcajshcahsc&%VBGFFGBjsxnscjdbb#%^ujdsfbibfwfbwhfbwhbshbvskdhcvbd
-----END PRIVATE KEY-----
-----BEGIN CERTIFICATE-----
cbhsdabsdahcbsacascakhsdbkndsjnbsdjkcvsbkjdcvbskjdbvskdjvbskdvbksdbcskdcbkskdb
bskdcbfcc
ahscbahscbakshcbakshcbasdhcbakhbcahscbakshcbakshcbakshcbakshcbakshcbakshcbakshcb
akhsdb ahscashcajshcajshcahsc&%VBGFFGBjsxnscjdbb#%^ujdsfbibfwfbwhfbwhbshbvskdhcvbd
-----END CERTIFICATE-----
```

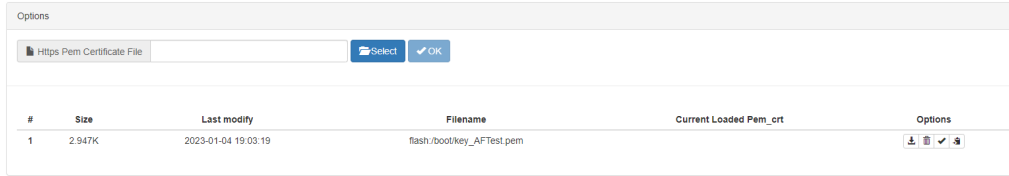
1. Launch the web browser and enter the IP address.
2. Login to the GUI, (admin/gtadmin1).
3. Select System Management.
4. Select Update Management.
5. Select the Select image file (Upload files to boot) Choose File.
6. Select the “key\_AFTest.pem”.
7. Select Upload only.
8. Select File Management.
9. Select the Boot files Tab.
10. Verify the new “key\_AFTest.pem”.

#### 5. Apply the Custom SSL Certificate

1. Select Security.

2. Select Https Pem\_crt.

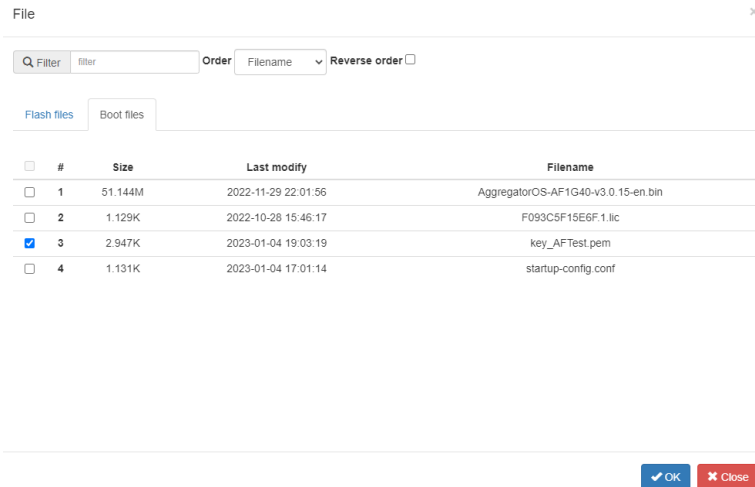
*The key\_AFTest.pem will be displayed.*



3. Select Select.

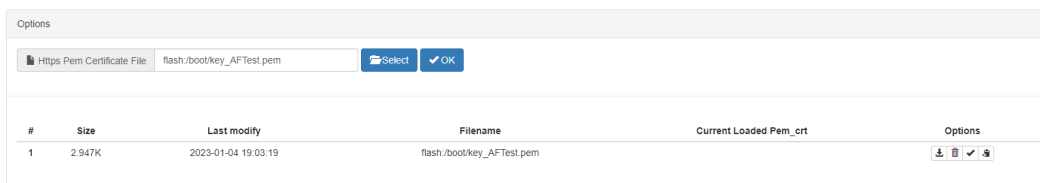
4. Select the Boot files Tab.

5. Select the pem file “key\_AFTest.pem”.



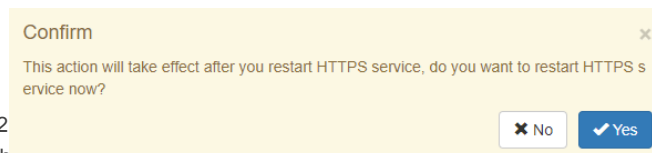
6. Select OK.

7. Verify the Https Pem Certificate File, new “key\_AFTest.pem”.



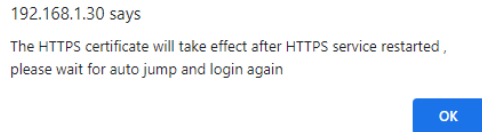
8. Select OK.

*The Confirm message will be displayed.*



9. Select Yes.

*The HTTPS restart message will be displayed.*



10. Select OK.

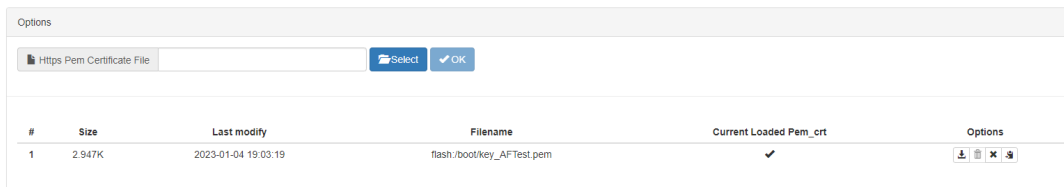
*The GUI will refresh.*

11. Login to the GUI, (admin/gtadmin1).

12. Select Security.

13. Select Https Pem\_cert.

14. Verify the Current Loaded Pem\_cert.



15. Select the Download icon to download the pem file.

16. Select the Cancel icon to cancel the current loaded pem file. This will cause the GUI to be restarted back to the login display.

17. Select the Backup icon to create a .pem\_BAK file.

18. Select the Delete icon to delete the pem file. However, the pem file must be canceled before delete is allowed.